EDC 640/641 Introduction to Distributed Learning with Mercedes Fisher, Ph.D.

Sample Projects

Description

This course is designed to introduce educators to the potential computer technology offers for the improvement of learning and teaching. Hands-on activities will be designed to enhance a teacher's technological fluency and simulate the quality of learning experiences we desire for children. The reading and writing assignments were carefully chosen to stimulate thought and provoke a spirited discussion among classmates. Students in this class will become proficient enough in the use of appropriate educational technologies to make thoughtful decisions about its use in their classrooms. By the end of the course, students will be able to use popular software tools in a professional manner.

The role of technology in schools (even the role of schools in learning) is far from decided and agreed upon. It is the goal of this class for all participants to leave with a personal vision of how technology may be used in their daily practice to improve the quality of life for their students.

The Concept Behind the Course

From The Pattern on the Stone: The Simple Ideas that Make Computers Work
by Daniel Hillis

The philosopher Gregory Bateson once defined information as the difference that makes a difference... A lot of things are different in the world today, but the difference that has made the difference has been computers. These days, computers are popularly thought of as multimedia devices, capable of incorporating and combining all previous forms of media - text, graphics, moving pictures, sound. I think this point of view leads to an underestimation of the computers potential. It is certainly true that a computer can incorporate and manipulate all other media, but the true power of the computer is that it is capable of manipulating not just the expression of ideas but also the ideas themselves. The amazing thing to me is not that a computer can hold the contents of all the books in a library but that it can notice relationships between the concepts described in the books - not that it can display a picture of a bird in flight or a galaxy spinning but that it can imagine and predict the consequences of the physical laws that create these wonders. The computer is not just an advanced calculator or camera or paintbrush; rather, it is a device that accelerates and extends our processes of thought. It is an imagination machine, which starts with the ideas we put into it and takes them farther than we ever could have taken them on our own. (Daniel Hillis, 1998).

Objectives

1. Explore, analyze, discuss, and evaluate:
   --Various uses and applications of computers and technologies in educational settings and the impact of such uses on the learners.
   --Issues pertaining to the use of computers and other technologies in education, and to formulate your philosophical position on such issues.
2. Become familiar with a computer and fluent in using the software tools used by contemporary professionals:
   --MicroWorlds Pro - MicroWorlds Pro is the current generation of Logo. Students will begin to understand the underlying constructionist philosophy of learning inherent in the educational use of Logo.
   --Macromedia Flash - Another software possibility for this project too.
3. Gain an understanding of the educational software design and marketing process in an effort to better understand a particular product's motivation, quality and purpose.
4. Develop a sense of community in your cadre.
5. Organize your online resources and prepare for the academic year ahead.

Grading
50% of grade - Attendance and Participation
This includes attendance in synchronous sessions, homework, readings, and participation in the class newsgroup on the Internet.
Students are strongly advised to read educational journals, books, computing magazines, and any trade publications that would enhance their understanding of education and educational computing. Such information makes a welcome contribution to classroom dialogue. Sharing of resources, experience, insights and knowledge is expected.

50% of grade - Projects

1. MicroWorlds Problem Solving (30%):
   Students will build a virtual pet (or similar project by permission of faculty) using MicroWorlds Pro or Macromedia Flash. Individual creativity is anticipated. We will explore the role of online technologies by supporting each other in our project development and learning of MicroWorlds Pro and/or Macromedia Flash. The final result should be published on the World Wide Web.
2. Personal Portfolio Foundations (20%):
   Students will create the framework for the web-based learning portfolios used throughout the duration of the OMAET program.

Important Note on Participation (a.k.a. "Building a Community")
The interaction we strive for in the online learning community is the product of collaborative creation of meaning and knowledge and focused outcomes. It fosters active reflection of knowledge and generates the development of new knowledge. The result is a collective intellect and mutual accountability. This product of learning is far greater than the total outcome acquired through independent coursework and is progress in learning that cannot be achieved alone. Students build a community that is the result of skill, imagination and creativity of the members themselves. In the online discussions you have the ability to communicate with others, manipulate virtual objects, and construct new ones. You not only construct the environment in the discussion, your very identities within the environment are also established. We found synchronous environments to be the most powerful social aspect for this. It allows participants a chance to really get to know each other as a community, which then connects and motivates students toward continuous discussion of content, problem solving and application in the asynchronous environment. It adds a social dimension by providing real-time updated resources, stimulating curiosity and immediate feedback. Thus, part of the learning is becoming conscious of the subject or experience, addressing changing attitudes and calling them into question.

The learning group allows a smaller and more focused group of people to help each other. It is in a learning community where help and support are offered to each other in learning. In particular, the main task there is to help each other learn from the material and from each student's experience. Relating theory and practice to each other is an important part of this process. That is what helps develop the learning community into a community of practice. In many instances, it makes visible the learning that has already occurred. For example, members help each other to draw conceptual insights from experience, whether social activities or other experience. Also, it can help improve understanding as to how to apply the social material in practice. The community can also serve a number of other valuable purposes, including; providing support and friendship, helping each other decide how to proceed with assignments and projects, exchanging material relevant to the more specific interests of the community, and learning vicariously from one another's experience.

Reading and Assignment Schedule
WEEK 1- Post thoughts on first half of How Technology is Transforming Our Imagination The

Playful World book to newsgroup.
Participate in ensuing discussion. Begin Projects.
WEEK 2- Post and discuss thoughts based on the last half of How Technology is Transforming Our Imagination The Playful World in the newsgroup. Work on Projects.
WEEK 3 - Tapped In. Discuss book. Be prepared to respond to discussion questions (posted in newsgroup) based on the constructivist articles. Work on Projects.
WEEK 4 - Tapped In discussion on When Things Start to Think book. Work on Projects. Post project and solicit peer review. Conitinue NG discussions on articles.
WEEK 5 -Begin NG discussions on When Things Start to Think book. Digital pets due to be shared. This date may be made earlier by decision of group. Please send me the url for you site and a link to your Virtual Pet. You will also need to send me your URL for what will become you Personal Portfolio Foundations site.

APPENDIX

A Few Suggestions

Synchronous Discussion Guidelines

Below are some simple guidelines to help deter the amount of frustration you might have in synchronous discussion environments

1. When "speaking", use a leader (i.e., "...") at the end of a statement when not finished with a thought. Anything in excess of three lines of text will be too much so you must divide up your discussion comments into smaller segments so you do not lose the audience while they are waiting for you to type it in. Also, you run the risk that it will be lost as other comments come pouring in right after that were waiting in the cue while yours was being typed and sent. This make the discussion more fragmented.

2. As listener wait until the speaking person has finished expressing their thought before replying. Be patient and work at not being uncomfortable with momentary silences they are to be expected. Sometimes responses from two or more participants will happen at virtually the same time. Let's say this happens to Austin and Jake. Jake could step back for a moment and let Austin know it is okay to continue by saying something like " Austin, go ahead". After Austin finishes, he needs to return the conversation to Jake with a "Jake what do you think?" or "Jake, do you have more to add?"

3. Stay on topic and share only messages that are relevant to the subject of the discussion group and until everyone that wants to say something about that topic has spoken. Do not perpetuate off topic comments. If someone makes an inappropriate comment do not add more noise by replying to it in the discussion.

4. If you have specific ideas, resources or questions you want to share during a discussion, type them into a word processing document and then copy and paste them into the discussion. Most people can copy and paste faster than they can type.

5. Don't worry about spelling. We will assume that all of your misspellings and grammar mistakes are typo errors so don't try to go back and correct them.

6. Use common abbreviations acronyms and symbols to simplify your typing. If you are going to use an abbreviation often that may not have a common understanding, define it the first time you use it.

7. Remember that it is easy to misinterpret words when you have no accompanying facial, body, or tone expressions to give additional meaning to those words. Try not to assign a tone to the person speaking. You can use smiley faces (-: to indicate that you're smiling and CAPS to make

a strong point. If you do not understand what someone else is trying to say or think you may be misinterpreting what they have said, state your interpretation with a question, "Madeline, are you saying that ÖÖ?" You can add adjectives/descriptors of emotions in the text, too.

8. Use page numbers when referring to books to help others find place of graphic, quote or idea quickly

9. Be civil. Please refrain from inappropriate comments and personal attacks.

Emoticons, Starlines and Abbreviations
In spite of your best efforts to produce clear, inspiring messages, there will be times when you cannot communicate effectively using only words. When this happens, you might want to try some emoticons, little sideways ASCII renditions of human expressions that help to strengthen the tone of a given message. Here are a few examples -- many of you will probably know others you'd like to use:

- :-) - User is happy; conveys positive meaning where the intent is unclear or where slight offense might be taken.
- ;-) - User is winking; intended to tell recipient that the sender is joking or teasing. Note that this is not implying that you should tease your protégé, although some relationships may thrive on teasing or banter -- be careful here.
- :-(- User is unhappy; helps to put across disappointment, regret or sympathy.

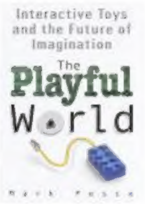
- :-/ - User is embarrassed by their own mistake (think "urk!").
- %-) - User is confused, but willing to take the time to understand.
- B-) - User is proud (of self or recipient -- the "B" is supposed to represent sunglasses).
- BTW - By the way.
- BRB - Be right back.
- IMHO - In my humble opinion.
- IMNSHO - In my not so humble opinion.
  And, for presentation, these can be mixed with a few more humorous ones:
- WYSIWYG - What you see is what you get.
- WYSINWYG- What you see is not what you get.
- WYSINEUTWYG - What you see is not entirely unrelated to what you get.
- TNSTAAFL - There's no such thing as a free lunch.
  Just about any common platitude is more humorous when abbreviated and then "played back" (Bill Wear, A Handbook for Mentors). Furthermore, using these guidelines for students can be helpful for avoiding frustration. In addition, the setting down of guidelines prior to the instructional and collaborative periods helps to solidify the community more fully, since each member knows the general format and expected process for communication

Use Metaphorical Language
Language and communications in online learning is very dynamic and has the potential of being extremely intense. Systems of symbolism, such as metaphors, stories, quotations and reflections use emotions to create culture and non-verbal gestures for online language. The use of metaphorical language is one of the most powerful forms of communication, and helps to build the sense of community within the online learning environment. Metaphors allow us to make connections by applying some degree of commonality to a subject perhaps otherwise obscure. It helps to create a mental picture-a visual that not only gives clarity to meaning, but also promotes retention of the new understanding being reached. Metaphorical language is also

powerful in the sense that, by naming an actual object, and applying it to an idea, the object itself temporarily becomes part of the defining properties, yet retains its original meanings, which allow the connection in the mind to take place. For example, below are actual online comments using metaphorical language in real-time (synchronous discussion):

Field trips are also one strategic approach we utilize. Students are encouraged to visualize having class in a new and exciting environment; for example, at the top of Mt. McKinley or at a cabin in the woods. The idea is to motivate them by placing them in an appealing setting. We've found it is best to explore and use environments or settings that have both meaning and motivation in relation to the content focus. Appropriate locations describe things, locations, and phenomena that lack the traditional physical substance. Although they have no real substance or life equivalent; however, the persuasiveness of its representation allows students to respond as if it was based in reality.

Required Books:



How Technology is Transforming Our Imagination The Playful World by Mark Pesce 2000 Ballantine Books New York (a web enhanced book)visit www.theplayfulworld.com

When Things Start to Think. NY:Owl Books. by Neil A. Gershenfeld

Optional Books:

Hillis, Daniel. The Pattern on the Stone: The Simple Ideas that Make Computers Work. New York: Basic Books.

Williams, Robin. The Non-Designer's Web Book : An Easy Guide to Creating, Designing, and Posting Your Own Web Site

Flash 5! Creative Web Animation

Derek Franklin Brooks Patton. Paperback, 568pp. ISBN: 020171969X Publisher: Peachpit Press

Flash 5 Bible with CD-ROM

Robert Reinhardt Jon Warren Lentz. Paperback, 1300pp.
ISBN: 0764535153 Publisher: Hungry Minds, Incorporated

This is a user-friendly, in-depth book that will serve both the web novice and the accomplished web master. The Flash 5 Bible will help you to get started on your first day with the program and will still be a valuable resource when you've attained mastery of the program.

Recommended Reading (Articles):

- If I Teach this Way, Am I Doing My Job? http://www.iste.org/L&L/archive/vol27/no1/feature/
- The Computer Delusion by Todd Oppenheimer http://www.tnellen.com/ted/tc/computer.htm
- Teaching With Toys: What Furbys and Tamagotchis can teach us about educational technology http://www.edmediausa.com/emerging4.htm
- Toys of Tomorrow by Nicholas Negroponte http://www.wired.com/wired/archive/6.03/negroponte_pr.html
- New Technology Bumps Into an Old Curriculum http://www.concord.org/library/1999winter/newtechnology.html